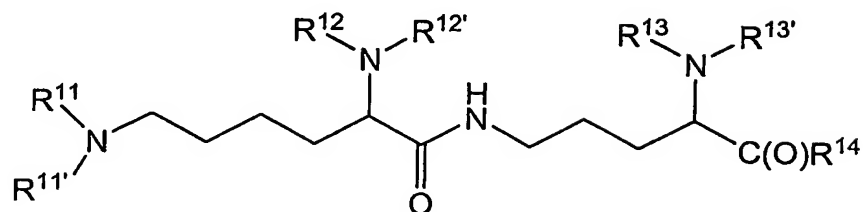


WHAT IS CLAIMED IS:

1. A peptide having the formula:

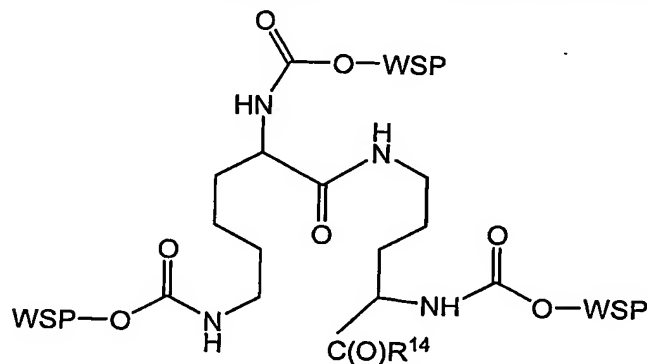


wherein

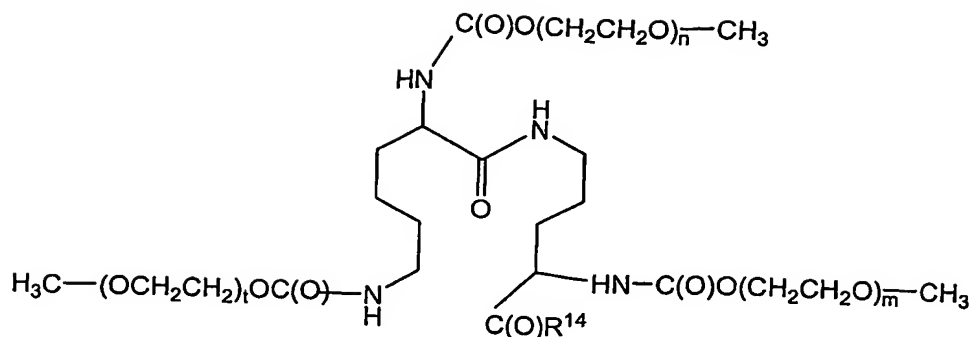
R^{11} , $R^{11'}$, R^{12} , $R^{12'}$, R^{13} and $R^{13'}$ are independently selected from H, substituted or unsubstituted alkyl and water-soluble polymers, with the proviso that at least two of R^{11} , $R^{11'}$, R^{12} , $R^{12'}$, R^{13} and $R^{13'}$ are water-soluble polymer moieties; and R^{14} is a member selected from OH, reactive functional groups, a group comprising a saccharide moiety or a group that is linked to a carrier molecule.

2. The peptide according to claim 1, wherein said water-soluble polymer moieties comprise poly(ethylene glycol).

3. The peptide according to claim 2, having the formula:



4. The peptide according to claim 2, having the formula:



in which

m, n and t are members independently selected from the integers from 1 to 20,000.

5. The peptide according to claim 1, wherein R¹⁴ comprises a saccharide moiety.

6. The peptide according to claim 5, wherein said saccharide moiety is a nucleotide sugar.

7. The peptide according to claim 5, wherein said saccharide moiety is conjugated to a member selected from a second peptide and a lipid.

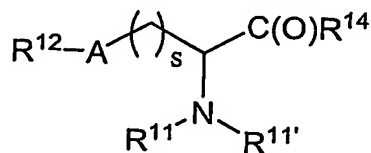
8. The peptide according to claim 5, wherein said saccharide moiety is conjugated to a member selected from an amino acid and a glycosyl residue of said peptide.

9. The peptide according to claim 8, wherein said saccharide moiety is a glycosyl linking group between said peptide and said second peptide.

10. The peptide according to claim 9, wherein said saccharide moiety is an intact glycosyl linking group between said peptide and said second peptide.

11. A pharmaceutical formulation comprising the peptide according to claim 1 wherein R¹⁴ comprises a carrier molecule that is a member selected from therapeutic moieties, and a pharmaceutically acceptable carrier.

12. An amino acid having the formula:



wherein

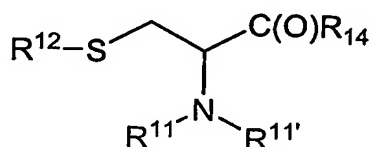
A is a member selected from O, NH and S;

R^{11} , $R^{11'}$, and R^{12} are independently selected from H, substituted or unsubstituted alkyl and water-soluble polymers, with the proviso that at least two of R^{11} , $R^{11'}$, and R^{12} are water-soluble polymer moieties; and

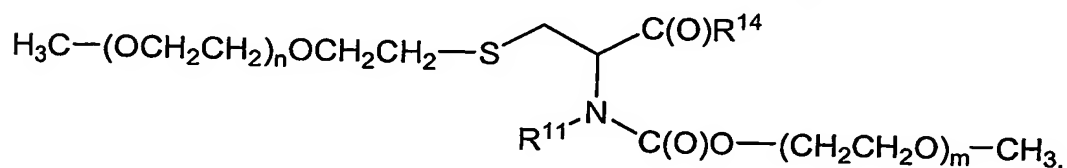
R^{14} is a member selected from OH, reactive functional groups, a group comprising a saccharide moiety or a group that is linked to a carrier molecule.

13. The amino acid according to claim 12, wherein said water-soluble polymer moieties comprise poly(ethylene glycol).

14. The amino acid according to claim 12, wherein said water soluble polymer moieties have the formula:



15. The amino acid according to claim 14, having the formula:



16. The amino acid according to claim 12, wherein R^{14} comprises a saccharide moiety.

17. The amino acid according to claim 16, wherein said saccharide moiety is a nucleotide sugar.

18. The amino acid according to claim 16, wherein said saccharide moiety is conjugated to a member selected from a second peptide and a lipid.

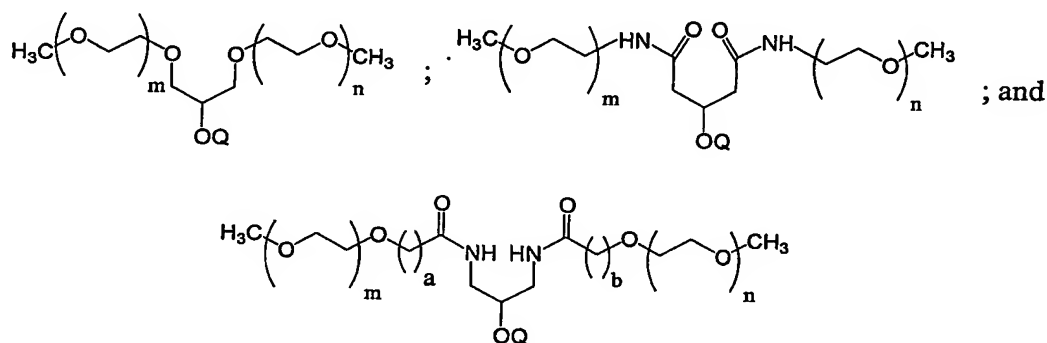
19. The amino acid according to claim 16, wherein said saccharide moiety is conjugated to a member selected from an amino acid and a glycosyl residue of said peptide.

20. The amino acid according to claim 19, wherein said saccharide moiety is a glycosyl linking group between said peptide and said second peptide.

21. The amino acid according to claim 20, wherein said saccharide moiety is an intact glycosyl linking group between said peptide and said second peptide.

22. A pharmaceutical formulation comprising the amino acid according to claim 12 wherein R^{14} comprises a carrier molecule that is a member selected from therapeutic moieties, and a pharmaceutically acceptable carrier.

23. A branched water-soluble polymer having a formula that is a member selected from:



in which

Q is a member selected from H, a member comprising a carrier molecule and an activating group, such that C(O)Q' is a reactive functional group; and m and n are integers independently selected from 1 to 20,000.

24. The branched water-soluble polymer according to claim 23, wherein Q' is a member selected from halogen, pentafluorophenyl, HOBT, HOAt, and p-nitrophenol.

25. The branched water-soluble polymer according to claim 23, wherein Q' comprises a saccharide moiety.

26. The branched water-soluble polymer according to claim 25, wherein said saccharide moiety is a nucleotide sugar.

27. The branched water-soluble polymer according to claim 25, wherein said saccharide moiety is conjugated to a member selected from a second peptide and a lipid.

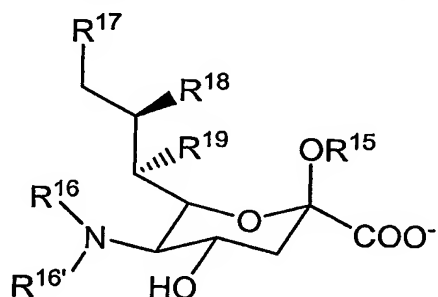
28. The branched water-soluble polymer according to claim 25, wherein said saccharide moiety is conjugated to a member selected from an amino acid and a glycosyl residue of said peptide.

29. The branched water-soluble polymer according to claim 28, wherein said saccharide moiety is a glycosyl linking group between said peptide and said second peptide.

30. The branched water-soluble polymer according to claim 29, wherein said saccharide moiety is an intact glycosyl linking group between said peptide and said second peptide.

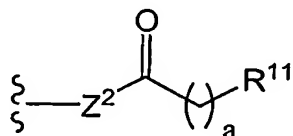
31. A pharmaceutical formulation comprising the amino acid according to claim 23 wherein Q' comprises a carrier molecule that is a member selected from therapeutic moieties, and a pharmaceutically acceptable carrier.

32. A branched water-soluble polymer having the formula:



in which

R^{16} , $R^{16'}$, R^{17} , R^{18} and R^{19} are members independently selected from H, OH, NH_2 , NHAc and:



(I)

wherein

Z^2 is a member selected from O, S, CH_2 and S

R^{11} is a water-soluble polymer, and

the index "a" represents an integer from 0 to 20,

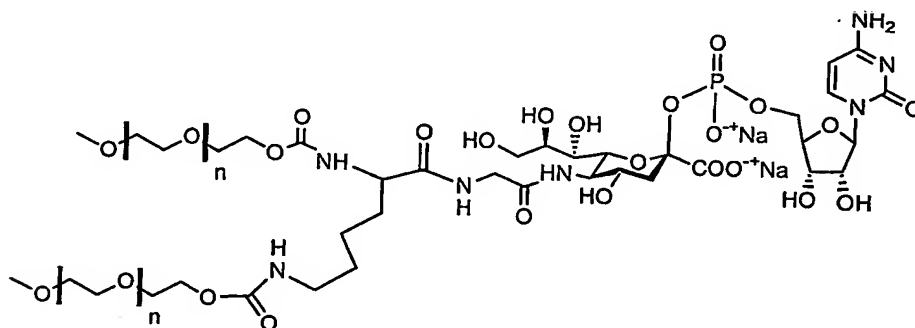
with the proviso that at least two of R^{16} , $R^{16'}$, R^{17} , R^{18} and R^{19} have a structure according to Formula I; and

13 R^{15} is a member selected from H, a nucleotide sugar, and a bond to a carrier molecule.

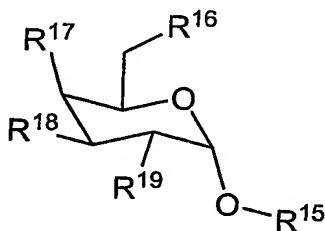
1 33. The branched water-soluble polymer according to claim 32, wherein said
2 water-soluble polymer comprises poly(ethylene glycol).

1 34. The branched water-soluble polymer according to claim 32, wherein said
2 carrier molecule is a member selected from peptides and lipids.

1 35. The branched water-soluble polymer according to claim 32, having the
2 formula:

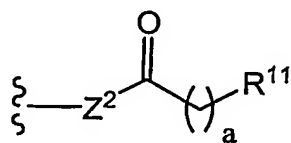


1 36. A branched water-soluble polymer having the formula:



2 wherein

4 R^{16} , R^{17} , R^{18} and R^{19} are members independently selected from H, OH, NH_2 , $NHAc$
5 and:



(I)

7 wherein

8 Z^2 is a member selected from O, S, CH_2 and S

9 R^{11} is a water-soluble polymer, and

10 the index "a" represents an integer from 0 to 20,

11 with the proviso that at least two of R^{16} , $R^{16'}$, R^{17} , R^{18} and R^{19} have a structure
12 according to Formula I; and
13 R^{15} is a member selected from H, a nucleotide sugar, and a bond to a carrier molecule.

1 **37.** The branched water-soluble polymer according to claim 36, wherein said
2 water-soluble polymer comprises poly(ethylene glycol).

1 **38.** The branched water-soluble polymer according to claim 36, wherein said
2 carrier molecule is a member selected from peptides and lipids.